

ABoVE Full SDT Telecon – 8/14/13

Attendees: Sharon Billings, Natalie Boelman, Steve Colt, Josh Fisher, Scott Goetz, Peter Griffith, Forrest Hall, Bob Harriss, Dan Hayes, Jeremy Karchut, Eric Kasischke, Libby Larson, Michelle Mack, Dave McGuire, Juha Metsaranta, Mike Rawlins, Rob Striegl, Colm Sweeney, Ruth Varner, Stan Wullschleger;
Rapporteur: Elizabeth Hoy

Agenda:

1. Announcements
2. Discussion of each small group's material for Chapter 3 and the start of Chapter 4 of the CEP

Announcements

- Plans are ongoing for the third SDT meeting in Ottawa, Canada from October 15th-17th
- Small groups should send updated write-ups to the full SDT by August 26th in preparation for the next full SDT telecon on August 29th at 1:30 pm eastern time

General Discussion

Dan H. referenced the work strategy for Chapters 3 and 4, and then he solicited reports from each of the groups as to their progress in writing the one-page report and objectives. These write-ups will form the basis of Chapter 3 of the ACEP. The write-ups had been emailed to the full SDT prior to the telecon for questions 1, 3, 4, 5, 7, 8, 9 (soil carbon had not yet distributed their text prior to the telecon but they did have representatives on the call to discuss their progress).

Questions 1 and 2 (Societal):

Draft text has been developed for question 1. Issues they encountered when writing their draft:

- Questions 1 and 2 are very similar, although it is possible that the differences in these questions may come out in the objectives. Eric K. suggested that the group discuss how to best address this issue, either through crafting unique objectives or through altering the questions.
- The interactions between human health and infrastructure may need to be addressed more fully in the text.
- Some of the team may not be aware of the types of remote sensing (RS) and data acquisition which could be used to address these questions and it may be helpful to have a meeting to discuss RS capabilities.
 - Peter G. mentioned that the Arc Online webinars in September may partially address these questions.

Question 3 (Permafrost):

Dan H. provided a discussion of the work of this group:

- Some of this group is currently out in the field and the group will have a more refined draft by the next telecon
- Dan H. put together text for this question (pulled from past ABoVE documents) discussing the components of permafrost and touched on the connections and interdependencies with the

other issues being addressed in the additional questions. The text includes information on the controls and distribution of permafrost, as well as current changes to ecosystems and societies.

Question 4 (Disturbance):

A summary is included below:

- Multiple types of disturbances are addressed (fire, insects, pathogens and permafrost thaw)
- There are three objectives identified
- This group was assisted by additional SDT members as permafrost thaw was included as a disturbance

Question 5 (Flora and fauna):

A summary is included below:

- The text of the question was altered to address biotic and abiotic conditions (instead of biological, chemical and physical processes)
- The text moves from a discussion of overarching changes to nuanced changes within the region
- A discussion of form and function is included
- A final paragraph is on remote sensing requirements and the need for ground measurements
- There are 3 objectives which address the drivers of changes, disturbance regimes and changes in ecosystems services
- There may be connections between this question and the societal questions which should be explored

Question 6 (Soil Carbon):

A summary is included below:

- The text of the question has been altered and 1.5 pages have been written (but only circulated within the soil carbon small group thus far)
- The write-up includes linkages between permafrost and soil carbon, a general discussion of soil carbon issues and text on the extent of soil organic carbon
- The group focused broadly on soil carbon and the write-up is not CO₂ specific (DOC and CH₄ are also included)
- Three objectives have been determined and they have associated goals

Questions 7 and 8 (Hydrology):

A summary is included below:

- The write-up includes sections on scientific rationale, research approach and objectives
- There is a need to discuss snow in the questions,
- A more in-depth discussion of ecosystem structure and function may be needed
- The text for question 8 is still in the early stages. Currently, the rationale from question 7 applies to question 8 but question 8 will need more detail within the research approach section

- It was brought up that hydrology has 2 questions while other groups have only 1 and this could cause others outside the SDT to conclude that ABoVE has a stronger focus on hydrology than other areas
 - There was discussion of combining question 7 and 8 and the hydrology group will consider this and report back at the next telecon

Question 9 (Integrative):

A summary is included below:

- This group attempted to indicate interactions related to the other questions and the objectives determined for this write-up attempt to look at integration
- Figure 9.2 attempts to tie integration of the other question with a list of issues of concern to humans
- As other groups have now better defined their sections, the question 9 group will be able to revisit their question and expand it so that it encompasses additional issues
- The requirements section of this write-up may be modeling heavy and can now be refined based on the additional information from the other groups

General Comments:

A few comments and questions were raised throughout the discussion:

- Q: Should capabilities be addressed within the 1-page write-ups? A: Some highlights can be addressed in the 1 page write-ups, but save discussions of capabilities for Chapter 4
- Q: How will the SDT ensure that the integrative nature of the issues behind the questions is addressed across the text of each question? A: Dan H. and Eric K. will review the write-ups as they are finished and ensure that important themes are echoed across the text. Also, question 9 is designed to be integrative. Over the next telecons, the SDT can also discuss ways to ensure that the text is integrated. Small groups can also discuss among themselves what they feel the linkages might be between their components and those of the other groups.
Action Item: Dan H. and Eric K. to review write-ups for ways to integrate the issues across the text.
- Procedural note – It was mentioned that coordination across small groups is encouraged. If the expertise of an SDT member outside of a particular small group is desired, members of the team should ask each other for input.